

110 (Orb-88)	MPM	SUP
113 (WARC-92)	Adjustment to FX in 1 - 3 GHz	SUP
115 (WRC-95)	Calculation of pfd at the GSO in the band 6 700 - 7 075 MHz	SUP
118 (WRC-95)	Use of the 18.8 - 19.3 GHz and 28.6 - 29.1 GHz bands by non-GSO FSS	SUP
119 (WRC-95)	Sharing between the FSS and the FS in the 19.3 - 19.6 GHz band	SUP
120	Use of the bands 19.3 - 19.7 GHz and 29.1 - 29.5 GHz by non-GSO FSS	SUP
200 (Rev.Mob-87)	Class of emission on 2 182 kHz	SUP
210 (Mob-87)	Reducing the guardband around 500 kHz	SUP
211 (WARC-92)	Use by the mobile service of 2 025 - 2 110 MHz and 2 200 - 2 290 MHz	SUP
314 (Rev.Mob-87)	Collection of data for oceanography	SUP
315 (WRC-95)	Abolition of mobile station charges	SUP
316 (Rev.Mob-87)	Technical cooperation in maritime telecommunications	SUP
319 (Rev.Mob-87)	General review in 4/8 MHz (MMS/FX)	SUP
322 (Rev.Mob-87)	Watch keeping on GMDSS frequencies	SUP
323 (Mob-87)	Use of 156.525 MHz for DSC	SUP
330 (Mob-87)	Frequencies for RTF calling around 3 MHz	SUP
333 (Mob-87)	Use of HF for MSI	SUP
335 (Mob-87)	Non-paired frequencies, NBDP, ships	SUP
336 (Mob-87)	DSC on maritime HF	SUP
338 (WARC-92)	Provisional application of Art. 56	SUP
403 (WARC-79)	Aeronautical frequencies (3 023 kHz and 5 680 kHz)	SUP
409 (Mob-87)	Aeronautical public correspondence	SUP
410 (WARC-92)	Development of AP26 Plan	SUP
500	New carrier for LFBC in R1	NOC
505 (WARC-79)	BSS (sound) in 1.5 GHz	SUP
507	Agreements/Plans for BSS	NOC

508	WRC for HFBC	SUP
511 (HFBC-87)	Planning system for HFBC	SUP
512 (HFBC-87)	HF transmitters in bands governed by RR 531	SUP
513 (HFBC-87)	Harmful interference in HFBC bands	SUP
514 (HFBC-87)	Technical standards for HFBC	SUP
515 (HFBC-87)	HFBC Planning System/consultation procedure	SUP
516 (HFBC-87)	Antennas in HFBC	SUP
518 (Orb-88)	Area/Country symbols in AP30/30A	NOC
519 (Orb-88)	Provisions for interim systems	NOC
522 (WARC-92)	Further work by ITU-R Study Groups concerning the BSS (sound)	SUP
523 (WARC-92)	Planning for HFBC	SUP
524 (WARC-92)	Revision of AP30/30A	NOC
529 (WRC-95)	HFBC	SUP
530 (WRC-95)	Application of AR17	SUP
531 (WRC-95)	Review of AP30/30A	NOC
601 (Rev.Mob-87)	Standards for EPIRBs on 121.5 MHz/243 MHz	SUP
640 (WARC-79)	Disaster communications	SUP
641 (Rev.HFBC-87)	Use of the band 7 000 - 7 100 kHz	NOC
643 (WRC-95)	Inter-satellite links between 50 and 70 GHz	SUP
702 (WARC-79)	RARC for VHF/UHF bands in R3	SUP
704 (Mob-83)	Planning of MMS/Aero. Nav. in LF/MF	SUP
710 (WARC-92)	MetSats and EES services in the band 401 - 403 MHz	SUP
711 (WARC-92)	Relocation of frequency assignments for space missions	SUP
712 (Rev.WRC-95)	Consideration of issues dealing with allocations for space services	NOC
718 (WRC-95)	Agenda for WRC-97	SUP
719 (WRC-95)	Urgent studies for WRC-97	SUP
720 (WRC-95)	Preliminary agenda for WRC-99	SUP

List of actions with regard to WARC/WRC recommendations

Recommendation No.	Subject	Action
1 (WARC-79)	Use of space systems in disasters ...	SUP
2 (WARC-79)	Spectrum occupation by space services	SUP
4	National and international circuits in HF	SUP
5	Reducing the congestion in HF	SUP
6 (WARC-79)	Assistance to developing countries	SUP
10 (WARC-79)	Presentation of draft amendments to RR	SUP
11 (WARC-79)	Marginal numbering of the RR	SUP
13 (WARC-79)	WARC for partial revision of RR	SUP
15 (Orb-88)	Review of Article 14 of the RR	SUP
30 (WARC-79)	International monitoring	SUP
31 (WARC-79)	Handbook on Frequency Management	SUP
35	Procedure for modification of a Plan	NOC
60 (WARC-79)	Technical standards of the IFRB	SUP
62 (WARC-79)	Classification of emissions	SUP
65 (WARC-79)	Spectrum sharing	SUP
68 (WARC-79)	Studies on propagation and noise	SUP
69 (WARC-79)	Frequency tolerances	SUP
72 (WARC-79)	Terminology	SUP
73 (WARC-79)	Use of term "channel"	SUP
74 (WARC-79)	Use of SI	SUP
103 (WARC-79)	Energy dispersal in FSS systems	SUP
302 (Rev.Mob-87)	Improved use of HF in MMS	SUP
303 (Rev.Mob-87)	Use of 4 125 kHz and 6 215 kHz for distress and safety	SUP

304	Frequencies in Appendix 16, Section B	SUP
305	Use of CH15 and CH17 of AP18	SUP
306	Watch on 156.8 MHz	SUP
310	Automated UHF MM	SUP
312 (Rev.Mob-87)	Interconnection of MM in PSTN	SUP
317 (Rev.Mob-87)	Priority Indicator Signal (MMS)	SUP
403 (WARC-79)	Congestion in HF - AM(R)S	SUP
406 (WARC-79)	Revision of AP26	SUP
407 (WARC-79)	Definition of sub-area 5B in AP27	SUP
502 (WARC-79)	Specification of low-cost TV receivers	SUP
505 (WARC-79)	Propagation studies in 12 GHz, BSS	SUP
508 (WARC-79)	BSS transmitting antennae	SUP
509	Experts in HFBC	SUP
510	Planning parameters for HFBC	SUP
512	Propagation prediction method for HFBC	SUP
513	National coverage in HFBC	SUP
514	Propagation prediction method for HFBC	SUP
516	Synchronized transmitters in HFBC	SUP
517	SSB PR in HFBC	NOC
518	HFBC receivers	NOC
519	Introduction of SSB	NOC
520	Elimination of out-of-band HFBC emissions	NOC
521	Technical parameters for Planning	NOC

601 (WARC-79)	Frequency band for collision avoidance system	SUP
603 (Rev.Mob-87)	Technical provisions for maritime radiobeacon in the African area	SUP
607 (Mob-87)	Requirements for MLS in 5 GHz	SUP
620 (WARC-79)	Meteo Aids in 27 MHz	SUP
621 (WARC-92)	Implementation of wind profiler radars	SUP
704 (WARC-79)	Sharing BC/Radionav. at VHF	SUP
706	Frequency sharing in the band 18.6 - 18.8 GHz	NOC
712 (WARC-79)	Design characteristics for BSS	SUP
714 (Mob.87)	Compatibility BC/AM(R)S in VHF	SUP
717 (Rev.WRC-95)	Frequency sharing below 3 GHz	SUP
721 (WRC-95)	Frequency sharing between MSS and the radio astronomy service	SUP

INTERNATIONAL TELECOMMUNICATION UNION



**FINAL ACTS
of the
World Radiocommunication Conference
(WRC-97) Geneva, 1997**

VOLUME II

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APPENDIX S30 TO THE RADIO REGULATIONS

Article 11

**Plan for the Broadcasting-Satellite Service in the Frequency Bands
11.7 - 12.2 GHz in Region 3 and 11.7 - 12.5 GHz in Region 1**

APPENDIX S30A TO THE RADIO REGULATIONS

Article 9A

**Plan for Feeder Links for the Broadcasting-Satellite Service
in the Fixed-Satellite Service
in the Frequency Bands 14.5 - 14.8 GHz and 17.3 - 18.1 GHz
in Regions 1 and 3**

APPENDIX S30

ARTICLE 11

Plan for the Broadcasting-Satellite Service in the Frequency Bands 11.7 - 12.2 GHz in Region 3 and 11.7 - 12.5 GHz in Region 1

11.1

COLUMN HEADINGS OF THE PLAN

- Col. 1. *Notifying administration symbol.*
- Col. 2. *Beam identification* (Column 2, normally, contains the symbol designating the country or the geographical area taken from Table B1 of the Preface to the International Frequency List, followed by the symbol designating the service area).
- Col. 3. *Nominal orbital position*, in degrees and hundredths of a degree from the Greenwich meridian (negative values indicate longitudes which are west of the Greenwich meridian; positive values indicate longitudes which are east of the Greenwich meridian).
- Col. 4. *Channel number.*
- Col. 5. *Nominal intersection of the beam axis with the Earth* (boresight or aim point in the case of a non-elliptical beam), longitude and latitude, in degrees and hundredths of a degree.
- Col. 6. *Space station transmitting antenna characteristics* (elliptical beams). This column contains three numerical values corresponding to the major axis, the minor axis and the major axis orientation respectively of the elliptical cross-section half-power beamwidth, in degrees and hundredths of a degree. Orientation of the ellipse determined as follows: in a plane normal to the beam axis, the direction of a major axis of the ellipse is specified as the angle measured anticlockwise from a line parallel to the equatorial plane to the major axis of the ellipse, to the nearest degree.
- Col. 7. *Space station transmitting antenna pattern code.*
- Col. 8. *Space station transmitting antenna shaped (non-elliptical) beam identification.*
- Col. 9. *Maximum space station transmitting antenna co-polar and cross-polar (in the case of shaped beam) isotropic gain*, in dBi.
- Col. 10. *Earth station receiving antenna pattern code.*

- Col. 11. *Polarization* (CL - circular left, CR - circular right, LE - linear referenced to the equatorial plane) and polarization angle in degrees and hundredths of a degree (in the case of linear polarization only).
- Col. 12. *E.i.r.p.* in the direction of maximum radiation, in dBW.
- Col. 13. *Designation of emission.*
- Col. 14. *Identity of the space station.*
- Col. 15. *Group code* (An identification code which indicates that all assignments with the same group identification code will be treated as a group.)
- Col. 16. *Assignment status.*
- Col. 17. *Remarks.*

The codes used for the antenna pattern of the transmitting space station (downlink) antenna are defined as follows:

R13TSS	Figure 9 and Section 3.13.3 in Annex 5 of Appendix 30
R123FR	Figure 11 and Section 3.13.3 in Annex 5 of Appendix 30
RAD_TSS	RADIOSAT-3 antenna pattern (antenna pattern data supplied by the Administration of France)

In cases where the "Space station transmitting antenna pattern" field is blank, the necessary antenna pattern data are provided by shaped beam data submitted by the administration. These data are stored in column 8. A particular shaped beam is identified by the combination of column 1, column 8 and column 14. In such cases the maximum cross-polar gain is given in the "Cross-polar gain" field.

The codes used for receiving earth station (downlink) antenna patterns are defined as follows:

R13RES	Figure 7 and Section 3.7.2 in Annex 5 of Appendix 30
MODRES	Recommendation ITU-R BO.1213

The assignment status codes used for beams are defined as follows:

P	Assignment in the Plan for which § 4.3.5 (in terms of 8 years lapsing period) of this Appendix does not apply.
PE	Assignment in the Plan for which § 4.3.5 (in terms of 8 years lapsing period) of this Appendix does not apply. These assignments have been notified and brought into use and the date of bringing into use has been confirmed to the Bureau. For this category of assignments, the parameters in force before WRC-97 are applied.
A	Assignment in the Plan for which § 4.3.5 (in terms of 8 years lapsing period) of this Appendix applies.
AE	Assignment in the Plan for which § 4.3.5 (in terms of 8 years lapsing period) of this Appendix applies. These assignments have been notified and brought into use and the date of bringing into use has been confirmed to the Bureau. For this category of assignments, the parameters in force before WRC-97 are applied.

Group code: If an assignment is part of the group:

- a) The equivalent protection margin to be used for the application of Article 4 of this Appendix shall be calculated on the following basis:
 - for the calculation of interference to assignments that are part of a group, only the interference contributions from assignments that are not part of the same group are to be included; and
 - for the calculation of interference from assignments belonging to a group of assignments that are not part of that same group, only the worst interference contribution from that group shall be used on a test point to test point basis.
- b) If an administration notifies the same frequency in more than one beam of a group for use at the same time, the aggregate C/I ratio produced by all emissions from that group shall not exceed the C/I ratio calculated on the basis of a) above.

**TEXT FOR SYMBOLS IN REMARKS
COLUMN OF THE PLAN**

1. To be dedicated to the Islamic programme envisaged in the Conference¹ documents.
2. This assignment results from a common requirement of the Administrations of Denmark and Iceland. The service area includes the Faroe Islands and Iceland. The assignment may, after consultations between the two Administrations, be used by either of them.
3. Provisional Beam*. This assignment has been included in the Plan by WRC-97. This assignment is for exclusive use by Palestine, subject to the Israeli-Palestinian Interim Agreement of 28 September 1995, Resolution 741 of the ITU Council notwithstanding.
4. Assignment intended to ensure coverage of Algeria, Libya, Morocco, Mauritania and Tunisia, with the agreement of the countries concerned. If required, it may be used with the characteristics of the beam TUN 150.
5. This assignment shall be brought into use only when the limits given in Table 1 are not exceeded or with the agreement of the affected administrations identified in Table 2 with respect to:
 - a) assignments in the Region 2 Plan on 27 October 1997; or
 - b) assignments in the terrestrial services which are recorded in the Master Register with a favourable finding or received by the Bureau prior to 27 October 1997 for recording in the Master Register and which subsequently receive a favourable finding based on the Plan as it existed on 27 October 1997; or
 - c) assignments in the FSS that: are recorded in the Master Register with a favourable finding; or those which have been coordinated under the provisions of No. 1060 of the Radio Regulations or § 7.2.1 of Appendix 30; or those that are in process of coordination under the provisions of No. 1060 of the Radio Regulations or § 7.2.1 of Appendix 30 prior to 27 October 1997.

These administrations shall be informed by the notifying administration of changes in characteristics before these beams are brought into use.

6. This assignment shall not claim protection from the assignments of the administration indicated in Table 3 which are in conformity with Region 2 Plan on 27 October 1997.
7. This assignment shall not claim protection from the assignments of the administration indicated in Table 3 which are recorded in the Master Register with a favourable finding prior to 27 October 1997 to which S5.487/RR 838 and S5.43/RR 435 do not apply.
8. Pending clarification of bringing into service of the satellite network.

¹ The World Broadcasting-Satellite Administrative Radio Conference (Geneva, 1977).

TABLE 1

Symbol	Criteria
a	Paragraph 3 of Annex 1*
b	Paragraphs 4, 5a) and 5b) of Annex 1*
c	Paragraph 6 of Annex 1*
* These paragraphs and Annex are contained in the Radio Regulations in force at the time of WRC-97.	

TABLE 2

Beam name	channels	Ref. Table 1	Affected administrations*
ARM06400	24	b	AZE GEO IRN RUS TUR
	28, 32, 36, 40	b	AZE GEO IRN TUR
	28, 32, 36, 40	c	CHN INS J PAK SNG THA TON UAE
AZE06400	4, 8, 12, 16, 20	b	ARM GEO IRN RUS TUR
AZR13400	33, 37	a	G
	21	c	CAN E MLA USA VEN/ASA
BHR2550A	23	b	QAT UAE
BIH14800	2, 6, 10, 14, 18	b	ALB AUT CZE GRC HNG HRV I ROU SVK SVN YUG
BLR06200	1, 5, 9, 13, 17	b	LTU LVA MDA RUS SVK UKR
BRU3300A	12, 14, 16, 18	b	INS MLA
BTN03100	5, 9, 13	b	BGD IND NPL
	17	b	BGD CHN IND
CHN19000	1, 5, 9, 13	b	POR/MAC
COM2070A	19	b	F/MYT
CPV30100	24	c	MLA
CZE14400	23, 27, 31, 35, 39	b	AUT BIH D DNK HNG HRV I POL SVK SVN
	27, 31, 35, 39	c	UAE

-
- Administrations whose assignment(s) may receive interference from the beam shown in the left-hand column.

ERI09200	23, 27, 31, 35, 39	b	ARS DJI ETH SDN SOM YEM
	27	c	INS J MLA PAK SNG TON UAE
	31, 35, 39	c	CHN INS J KOR MLA PAK SNG THA TON UAE USA
EST06100	1, 5, 9, 13, 17	c	FIN LTU LVA NOR RUS S
	1, 5, 9, 13	c	USA/IT
FJ1930A	13	b	F/WAL
FSM00000	3, 7, 11, 15	b	KIR MHL F/OCE PLW
	19	b	KIR MHL NRU F/OCE PLW
	3, 7, 11, 15, 19	c	ARG J MHL MLA USA/IT USA VEN/ASA
G UKDBS	30, 34, 38	a	GUY JMC
	22	b	BLR EST LTU LVA POL RUS
	26, 30, 34, 38	b	BLR EST LTU LVA POL
	22	c	CAN USA
GEO06400	22	b	ARM AZE IRN RUS TUR
	26, 30, 34, 38	b	ARM AZE IRN TUR
	26	c	J MLA PAK SNG TON UAE
	30, 34, 38	c	CHN INS J KOR MLA PAK PNG SNG THA TON UAE USA
HISPASA2	1, 2, 5, 7, 9, 11, 13, 15, 17, 19	b	KAZ
HRV14800	1, 5, 9, 13, 17	b	AL AUT BIH BUL CZE D GRC HNG I MKD ROU SUI SVK SVN YUG
ISL04900	29	a	JMC
	33, 37	a	GUY JMC
ISR1100A	21	b	ARS AZE EGY IRN IRQ JOR LBN SYR TKM

KGZ07000	26, 30, 34, 38	b	AFG CHN KAZ MNG RUS TJK TKM UZB
	26	c	INS J MLA PAK SNG TON UAE
	30, 34, 38	c	CHN INS J KOR MLA PAK PNG SNG THA TON UAE USA
KIR00001	3, 7, 11	b	USA/HWL MHL NZL/TKL TUV
	3, 7, 11	c	ARG J MHL MLA USA/IT USA VEN/ASA
KIR00002	15, 19, 23	b	USA/JAR F/OCE USA/PLM
	15, 19, 23	c	ARG CAN J MHL MLA USA USA/IT VEN/ASA
LBR2440A	19	b	CTI GUI SRL
	19	c	ARG USA
LVA06100	21	b	BLR EST FIN LTU NOR POL RUS
	25, 29, 33, 37	b	BLR EST FIN LTU NOR POL
	29, 33, 37	c	UAE
MDA06300	4, 8, 12, 16, 20	b	ROU UKR
MKD14800	2, 6, 10, 14, 18	b	ALB BUL GRC HRV ROU YUG
MLA2280A	10	b	BRU INS PHL
MLT1470A	20	b	I TUN
NMB0250A	21	b	AGL BOT F/CRO LSO MAU MDG MOZ F/REU SWZ ZMB ZWE
	21	c	ARG E MEX MLA USA VEN/ASA
NPL1220A	23	b	BGD BTN CHN IND
POR13300	21, 25, 29, 33, 37	b	E
ROU13600	3, 7, 11, 15, 19	b	ALB BIH BLR BUL CZE HNG HRV MDA MKD POL TUR YUG
	3, 7, 11	c	USA/IT

RUS00400	25	b	CHN J KRE
	27, 31, 35, 39	b	J KRE
	25	c	G J MLA PAK SNG TON
	27	c	CHN G INS J PNG SNG THA TON
	31, 35	c	CHN G INS J KOR LAO PNG SNG THA TON USA
	39	c	CHN G INS J KOR LAO PNG SNG THA TON
SLM00000	1, 5, 9, 13	c	USA/IT
SVN14800	4, 8, 12, 16, 20	b	BIH CZE D HNG HRV I SMR SVK YUG
TJK06900	1, 5, 9, 13, 17	b	AFG CHN KAZ KGZ PAK TKM UZB
TKM06800	23	b	AFG AZE GEO IRN KAZ KGZ RUS TJK UZB
	27, 31, 35, 39	b	AFG AZE GEO IRN KAZ KGZ TJK UZB
	27	c	INS J MLA PAK PNG SNG TON UAE
	31, 35, 39	c	CHN INS J KOR MLA PAK PNG SNG THA TON UAE USA
UKR06300	3, 7, 11, 15, 19	b	AUT BLR BUL CZE DNK/FRO GEO HNG HRV ISL LVA MDA NOR POL RUS TUR YUG
UZB07100	3, 7, 11, 15, 19	b	AFG CHN KAZ KGZ PAK TJK TKM
YYY00001	1, 5, 9, 13, 17	b	ARS EGY ISR JOR LBN SYR

TABLE 3

Beam name	channels	Affecting administrations**
ARM06400	28, 32, 36, 40	PAK
AUS0040A	3, 7, 11	USA/IT
AUS0040B	3, 7, 11	USA/IT
AUS0040C	3, 7, 11	USA/IT
AUS0070A	15, 19, 23	J
	3, 7, 11	J USA/IT
AUS0090A	1, 5, 9, 13	J USA/IT
	17, 21	J
AUS0090B	1, 5, 9, 13	J USA/IT
	17, 21	J
AZE06400	4, 8, 12	USA/IT
AZR13400	21, 25	E
BFA10700	21, 25	E
BIH14800	2, 6, 10	USA/IT
BLR06200	1, 5, 9	USA/IT
BRU3300A	12	USA/IT
BTN03100	5, 9	USA/IT
CPV30100	24	E USA/IT
CTI23700	22	E
D 08700	2, 6, 10	USA/IT
EST06100	1, 5, 9	USA/IT
FJI1930A	13	USA/IT
FSM00000	11	J MHL USA/IT
	3, 7, 15, 19	J MHL
G 02700	4, 8, 12, 16, 20	USA/IT

** Administrations whose assignment(s) may cause interference from the beam shown in the left-hand column.

G UKDBS	22, 26	USA/IT
	30, 34, 38	GUY JMC
GEO06400	26, 30, 34, 38	PAK
GNB30400	14, 18	E USA/IT
	2, 6, 10	USA/IT
HISPASA2	1, 3, 5, 7, 9, 11, 13	USA/IT
HRV14800	1, 5, 9	USA/IT
IRL21100	2, 6, 10, 14, 18	USA/IT
ISL04900	21, 25	USA/IT
	29	JMC
	33, 37	GUY JMC
ISR1100A	21	USA
KAZ06600	28, 32, 36, 40	THA UAE
KGZ07000	26	UAE
	30, 34, 38	THA UAE
KIR00001	3, 7, 11	USA/IT
LBR24400	3, 7, 11, 15	USA/IT
LBR2440A	19	USA/IT
LTU06100	3, 7, 11	USA/IT
MDA06300	4, 8, 12	USA/IT
MHL00000	10	J USA/IT
	2, 6, 14, 18	J
MKD14800	2, 6, 10	USA/IT
MLA2280A	10	USA/IT
MLD3060A	4, 8	USA/IT
MLT1470A	20	USA

PLW00000	4, 16, 20	J MHL
	8, 12	J MHL USA/IT
POR13300	21, 25	E
ROU13600	3, 7, 11	USA/IT
RUS00400	25	J
	27	CHN J SNG
	31, 35	CHN G J SNG
	39	CHN G J
SLM00000	1, 5	J MHL
	9, 13	J MHL USA/IT
SRL25900	23	USA/IT
	27	GUY
	31, 35	GUY JMC
	39	JMC
SVN14800	4, 8, 12	USA/IT
TJK06900	1, 5, 9	USA/IT
TUV00000	2, 6, 10	USA/IT
UKR06300	3, 7, 11	USA/IT
UZB07100	3, 7, 11	USA/IT
VTN32500	3, 7, 11	USA/IT
YEM26600	2, 6, 10	USA/IT
YEM26700	1, 5, 9, 13	USA/IT
YYY00001	1, 5, 9, 13	USA/IT

**TABLE SHOWING CORRESPONDENCE BETWEEN CHANNEL
NUMBERS AND ASSIGNED FREQUENCIES**

Channel No.	Assigned frequency (MHz)	Channel No.	Assigned frequency (MHz)
1	11 727.48	21	12 111.08
2	11 746.66	22	12 130.26
3	11 765.84	23	12 149.44
4	11 785.02	24	12 168.62
5	11 804.20	25	12 187.80
6	11 823.38	26	12 206.98
7	11 842.56	27	12 226.16
8	11 861.74	28	12 245.34
9	11 880.92	29	12 264.52
10	11 900.10	30	12 283.70
11	11 919.28	31	12 302.88
12	11 938.46	32	12 322.06
13	11 957.64	33	12 341.24
14	11 976.82	34	12 360.42
15	11 996.00	35	12 379.60
16	12 015.18	36	12 398.78
17	12 034.36	37	12 417.96
18	12 053.54	38	12 437.14
19	12 072.72	39	12 456.32
20	12 091.90	40	12 475.50

1 Adm Symb	2 Beam Identification	3 Orbital Position*	4 Chan nel	5 Boresight		6 Space Antenna Character				7 Space Antenna	8 Shap. Beam	9 Space Ant. Gain		10 Earth Antenna	11 Polarization		12 EIRP dBW	13 Designation of Emission	14 Satellite Identification	15 Group Code	16 Status	17 Re- marks			
				Long *	Lat *	Major *	Minor *	Orient *	Co-pol.			Typ	X-pol.		Typ	Angle *									
AFG	AFG24600	50 00	1	64 50	33 10	1 44	1 40	21 00	R13TSS		41 40	MODRES	CR	58 40	27M0F8W						P				
AUS	AUS00900	164 00	1	147 50	-32 10	2 31	1 43	187 00	R13TSS		39 25	MODRES	CR	59 25	27M0F8W						78	P			
AUS	AUS0090A	164 00	1	159 06	-31 52	0 60	0 60	0 00	R13TSS		48 88	MODRES	CR	58 88	27M0F8W						78	P	7		
AUS	AUS0090B	164 00	1	167 93	-29 02	0 60	0 60	0 00	R13TSS		48 88	MODRES	CR	58 88	27M0F8W						78	P	7		
BLR	BLR06200	38 00	1	27 91	53 06	1 21	0 60	11 47	R13TSS		45 63	MODRES	CL	58 93	27M0F8W						P	5, 7			
CHN	CHN15500	62 00	1	88 30	31 50	3 38	1 45	162 00	R13TSS		37 54	MODRES	CL	57 94	27M0F8W						P				
CHN	CHN16200	92 00	1	115 90	21 00	2 74	2 42	23 00	R13TSS		38 23	MODRES	CL	58 93	27M0F8W						P				
CHN	CHN16300	79 80	1	116 00	39 20	1 20	0 80	132 00	R13TSS		44 82	MODRES	CR	59 42	27M0F8W						P				
CHN	CHN19000	122 00	1	114 17	23 32	0 91	0 60	2 88	R13TSS		47 08	MODRES	CR	58 88	27M0F8W						P	5			
CME	CME30000	-13 00	1	12 70	6 20	2 54	1 68	87 00	R13TSS		38 15	MODRES	CR	58 45	27M0F8W						P				
E	HISPASA2	-30 00	1	-8 80	35 40	3 00	1 90	45 00	R13TSS		38 90	MODRES	CL	59 00	27M0F8W	HISPASAT-2					A	5, 7			
EST	EST06100	23 00	1	25 01	58 47	0 72	0 60	9 93	R13TSS		48 09	MODRES	CL	58 89	27M0F8W						P	5, 7			
F	F 09300	-19 00	1	2 60	45 90	2 50	0 98	160 00	R13TSS		40 56	R13RES	CR	63 78	27M0F8W						19	PE			
F	F 09306	-7 00	1	2 60	45 90	2 50	0 98	160 00	R13TSS		41 00	MODRES	CR	58 90	27M0F8W	RADIOSAT						19	A		
F	F3_A2751	-7 00	1	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41 60	MODRES	LE	68 00	56 00	27M0F9W	RADIOSAT-3						19	A	
F	F3_A3351	-7 00	1	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41 60	MODRES	LE	68 00	56 00	33M0F9W	RADIOSAT-3						19	A	
F	F3_D2751	-7 00	1	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41 60	MODRES	LE	68 00	56 00	27M0G9W	RADIOSAT-3						19	A	
F	F3_D3351	-7 00	1	2 60	45 90	2 50	0 98	160 00	RAD_TSS		41 60	MODRES	LE	68 00	56 00	33M0G9W	RADIOSAT-3						19	A	
F /EUT	E2WA7DA1	29 00	1	1 90	49 00	1 82	1 82	0 00	R13TSS		40 40	R13RES	CR	51 00	27M0F9W	EUROPESAT-1						16	AE	8	
F /EUT	E2WA7DB1	29 00	1	12 70	44 50	1 82	1 82	0 00	R13TSS		40 40	R13RES	CR	52 00	27M0F9W	EUROPESAT-1						16	AE	8	
F /EUT	E2WA7DC1	29 00	1	8 90	61 30	3 06	0 71	9 00	R13TSS		41 50	R13RES	CR	60 50	27M0F9W	EUROPESAT-1						16	AE	8	
F /EUT	E2WA7DD1	29 00	1	17 50	40 40	2 54	1 07	168 00	R13TSS		40 70	R13RES	CR	53 70	27M0F9W	EUROPESAT-1						16	AE	8	
F /EUT	E2WA7DE1	29 00	1	-12 50	35 50	3 75	1 27	25 00	R13TSS		38 30	R13RES	CR	57 30	27M0F9W	EUROPESAT-1						16	AE	8	
F /EUT	E2WA7DF1	29 00	1	35 40	38 70	2 25	0 93	174 00	R13TSS		41 70	R13RES	CR	54 70	27M0F9W	EUROPESAT-1						16	AE	8	
F /EUT	E2WA7DG1	29 00	1	8 00	49 70	2 84	1 45	26 00	R13TSS		39 30	R13RES	CR	51 30	27M0F9W	EUROPESAT-1						16	AE	8	
FJI	FJI19300	152 00	1	179 40	-17 90	1 04	0 98	67 00	R13TSS		44 36	MODRES	CR	58 68	27M0F8W						P				
GUI	GUI19200	-37 00	1	-11 00	10 20	1 58	1 04	147 00	R13TSS		42 29	MODRES	CL	58 39	27M0F8W						P				
HRV	HRV14800	34 00	1	18 74	44 54	0 88	0 69	5 30	R13TSS		46 57	MODRES	CL	58 87	27M0F8W						P	5, 7			
IND	IND03900	56 00	1	72 70	11 20	1 26	0 60	107 00	R13TSS		45 66	MODRES	CR	58 08	27M0F8W						P				
IND	IND04401	68 00	1	79 50	22 30	2 19	1 42	146 00	R13TSS		39 52	MODRES	CR	58 32	27M0F8W						P				
INS	INS03500	104 00	1	124 30	-3 20	3 34	1 94	82 00	R13TSS		38 33	MODRES	CR	58 23	27M0F8W						P				
J	000BS-3N	109 85	1	134 50	31 50	3 52	3 30	68 00	R13TSS		33 80	R13RES	CR	63 20	27M0F8W	BS-3N						33	AE		
J	J 11100	110 00	1	134 50	31 50	3 52	3 30	68 00	R13TSS		33 80	R13RES	CR	63 20	27M0F8W						33	PE			
LBY	LBY28000	-25 00	1	21 40	26 00	2 50	1 04	119 00	R13TSS		40 30	MODRES	CL	58 50	27M0F8W						P				
MDG	MDG23600	29 00	1	46 60	-18 80	2 72	1 14	65 00	R13TSS		39 53	MODRES	CL	58 33	27M0F8W						P				
NZL	NZL05500	158 00	1	172 30	-39 70	2 88	1 58	47 00	R13TSS		37 92	MODRES	CR	58 32	27M0F8W						P				
POL	POL13200	-1 00	1	19 30	51 80	1 48	0 84	162 00	R13TSS		44 74	MODRES	CL	59 14	27M0F8W						P				
QAT	QAT24700	17 00	1	51 10	25 30	0 80	0 60	0 00	R13TSS		48 88	MODRES	CR	58 78	27M0F8W						P				
SLM	SLM00000	146 00	1	159 32	-8 40	1 50	1 18	140 48	R13TSS		41 98	MODRES	CL	58 88	27M0F8W						P	5, 7			
SMR	SMR31100	-37 00	1	12 60	43 70	0 60	0 60	0 00	R13TSS		48 88	MODRES	CR	57 38	27M0F8W						P				
SWZ	SWZ23100	-1 00	1	31 50	26 50	0 82	0 80	66 00	R13TSS		48 74	MODRES	CR	57 84	27M0F8W						P				
THA	THA14200	74 00	1	100 70	13 20	2 82	1 54	106 00	R13TSS		38 07	MODRES	CL	58 57	27M0F8W						P				
TJK	TJK06900	44 00	1	71 14	38 37	1 25	0 76	159 15	R13TSS		44 85	MODRES	CL	58 85	27M0F8W						P	5, 7			
TUR	TUR14500	5 00	1	34 40	38 90	2 68	1 04	168 00	R13TSS		40 00	MODRES	CR	58 70	27M0F8W						P				
USA	PLM33700	170 00	1	-161 40	7 00	0 60	0 60	0 00	R13TSS		48 88	MODRES	CR	57 38	27M0F8W						9	P			
USA	PLM33701	170 00	1	-161 40	7 00	0 60	0 60	0 00	R13TSS		48 88	MODRES	CR	57 38	27M0F8W						9	P			

1 Adm Symb	2 Beam Identification	3 Orbital Position*	4 Chan nel	5 Bore sight			6 Space Antenna Character			7 Space Antenna	8 Shap Beam	9 Space Ant. Gain		10 Earth Antenna	11 Polarization Typ.	12 EIRP dBW	13 Designation of Emission	14 Satellite Identification	15 Group Code	16 Status	17 Re- marks
				Long °	Lat °	Major*	Minor*	Orient *	Co-pol			X-pol.	Angle*								
USA	SMA33500	170 00	1	-170 10	-14 20	0 60	0 60	0 00	R13TSS		48.88		MODRES	CL	58 08	27M0F8W			13	P	
USA	SMA33501	170 00	1	-170 10	-14 20	0 60	0 60	0 00	R13TSS		48.88		MODRES	CL	58 08	27M0F8W			13	P	
USA	WAK33400	140 00	1	166 50	19 20	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR	58 58	27M0F8W			11	P	
USA	WAK33401	140 00	1	166 50	19 20	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR	58 58	27M0F8W			11	P	
YEM	YEM26700	11 00	1	48 61	14 42	1 68	1 44	157 35	R13TSS		40.61		MODRES	CL	58.91	27M0F8W			P	7	
	YYY00001	11 00	1	34 99	31 86	0 60	0 60	0 00	R13TSS		48.88		MODRES	CR	58.88	27M0F8W			P	3, 5, 7	
ALG	ALG25100	-25 00	2	4 20	33 20	2 45	1 25	172 00	R13TSS		39.59		MODRES	CR	58.39	27M0F8W			P		
ARS	ARS27500	17 00	2	48 30	24 60	3 84	1.20	138 00	R13TSS		37.81		MODRES	CL	57.71	27M0F8W			P		
AUS	AUS00600	152 00	2	138 60	-30 90	2 41	1.52	161 00	R13TSS		38.80		MODRES	CL	58.40	27M0F8W			P		
AUS	AUS00800	164 00	2	145 90	21 70	3 62	1 63	136 00	R13TSS		36.73		MODRES	CL	58.83	27M0F8W			P		
BIH	BIH14800	34 00	2	17 77	44 32	0 62	0 60	166 84	R13TSS		48.71		MODRES	CR	58.91	27M0F8W			P	5, 7	
BOT	BOT29700	-1 00	2	23 30	-22 20	2 13	1 50	36 00	R13TSS		39.40		MODRES	CL	58.70	27M0F8W			P		
CHN	CHN15400	62 00	2	83 90	40 50	2 75	2 05	177 00	R13TSS		36.94		MODRES	CR	58.24	27M0F8W			P		
CHN	CHN16100	92 00	2	118 10	31 10	2 49	1 69	117 00	R13TSS		38.21		MODRES	CR	59.41	27M0F8W			P		
CLN	CLN21900	50 00	2	80 80	7 70	1 18	0 60	108 00	R13TSS		45.95		MODRES	CR	58.65	27M0F8W			P		
D	D 08700	-19 00	2	9 60	49 90	1 62	0 72	147 00	R13TSS		43.78		MODRES	CL	58.48	27M0F8W			P	7	
F	F2_A2722	-7 00	2	3 40	45 80	2 00	0 95	155 00	R13TSS		42.70		MODRES	CL	58.00	27M0F9W	RADIOSAT-2	19	A		
F	F2aA2722	-7 00	2	3 40	45 60	2 00	0 95	155 00	R13TSS		42.70		MODRES	CL	58.00	27M0F9W	RADIOSAT-2	19	A		
F	F2aA2762	-7 00	2	3 40	45 60	2 00	0 95	155 00	R13TSS		42.70		MODRES	CL	58.00	27M0F9W	RADIOSAT-2	19	A		
F	F3_A2722	-7 00	2	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	58 00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A2762	-7 00	2	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	58 00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3322	-7 00	2	3 40	45 80	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	58 00	33M0F9W	RADIOSAT-3	19	A	
F	F3_A3362	-7 00	2	3 40	45 80	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	58 00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2722	-7 00	2	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	58 00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D2762	-7 00	2	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	58 00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3322	-7 00	2	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	58 00	33M0G9W	RADIOSAT-3	19	A	
F	F3_D3362	-7 00	2	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42.70		MODRES	LE	158 00	58 00	33M0G9W	RADIOSAT-3	19	A	
F	NCL10000	140 00	2	166 00	-21 00	1 14	0 72	146 00	R13TSS		45.30		MODRES	CR	58.70	27M0F8W			8	P	
F	NCL10001	140 00	2	166 00	-21 00	1 14	0 72	146 00	R13TSS		45.30		MODRES	CR	58.70	27M0F8W			8	P	
F	WAL10200	140 00	2	-176 80	-14 00	0 74	0 60	29 00	R13TSS		47.97		MODRES	CR	59.37	27M0F8W			8	P	
F	WAL10201	140 00	2	-176 80	-14 00	0 74	0 60	29 00	R13TSS		47.97		MODRES	CR	59.37	27M0F8W			8	P	
F	E2WA7DA2	29 00	2	1 90	49 00	1 82	1 82	0 00	R13TSS		40.40		R13RES	CL	51 00	27M0F9W	EUROPESAT-1	16	AE	8	
F	E2WA7DB2	29 00	2	12 70	44 50	1 82	1 82	0 00	R13TSS		40.40		R13RES	CL	52.00	27M0F9W	EUROPESAT-1	16	AE	8	
F	E2WA7DC2	29 00	2	8 90	61 30	3 06	0 71	9 00	R13TSS		41.50		R13RES	CL	60.50	27M0F9W	EUROPESAT-1	16	AE	8	
F	E2WA7DD2	29 00	2	17 50	40 40	2 54	1 07	168 00	R13TSS		40.70		R13RES	CL	53.70	27M0F9W	EUROPESAT-1	16	AE	8	
F	E2WA7DE2	29 00	2	-12 50	35 50	3.75	1.27	25 00	R13TSS		38.30		R13RES	CL	57.30	27M0F9W	EUROPESAT-1	16	AE	8	
F	E2WA7DF2	29 00	2	35 40	38 70	2 25	0.93	174 00	R13TSS		41.70		R13RES	CL	54.70	27M0F9W	EUROPESAT-1	16	AE	8	
F	E2WA7DG2	29 00	2	8 00	49 70	2 84	1 45	26 00	R13TSS		39.30		R13RES	CL	51.30	27M0F9W	EUROPESAT-1	16	AE	8	
FIN	FIN10300	5 00	2	22 50	64 50	1 38	0 76	171 00	R13TSS		44.24		MODRES	CL	62.74	27M0F8W			P		
GNB	GNB30400	-30 00	2	-15 00	12 00	0 90	0 60	172 00	R13TSS		47.12		MODRES	CL	58.12	27M0F8W			P	7	
IND	IND03700	68 00	2	93 00	25 50	1 46	1.13	40 00	R13TSS		42.27		MODRES	CL	58.87	27M0F8W			P		
IND	IND04501	58 00	2	76 20	19 50	1 58	1 58	21 00	R13TSS		40.47		MODRES	CL	58.47	27M0F8W			P		
INS	INS02800	80 20	2	101 50	0 00	3 00	1 20	133 00	R13TSS		38.88		MODRES	CL	58.28	27M0F8W			P		
IRL	IRL21100	-33 50	2	-8 20	53 20	0.84	0 60	162 00	R13TSS		47.42		MODRES	CR	59.22	27M0F8W			P	7	
KOR	KO11201D	116 00	2	127 50	36 00	1.24	1.02	168 00	R13TSS		43.40		R13RES	CL	63.60	27M0G7W	KOREASAT-1	20	AE		
KOR	KOR11200	110 00	2	127 50	36 00	1.24	1.02	168 00	R13TSS		43.43		MODRES	CL	58.63	27M0F8W			20	P	

1 Adm Symb	2 Team Identification	3 Orbital Position*	4 Chan nel	5 Bore sight			6 Space Antenna Character			8 Shap Beam	9 Space Ant. Gain		10 Earth Antenna	11 Polarization		12 EIRP dBW	13 Designation of Emission	14 Satellite Identification	15 Group Code	16 Status	17 Re- marks	
				Bore sight			Major*	Minor*	Orient.*		Space	Space Ant. Gain		Polarization	Typ	Angle*						
				Long *	Lat *		Major*	Minor*	Orient.*		Antenna	Co-pol	X-pol									
KOR	KOR11201	116 00	2	127 50	36 00		1 24	1 02	168 00	R13TSS		43 40		R13RES	CL		83 60	27M0F8W	KOREASAT-1	20	AE	
LAO	LAO28400	74 00	2	103 70	18 10		2 16	0 78	133 00	R13TSS		42 18		MODRES	CR		58 78	27M0F8W			P	
MAU	MAU24200	29 00	2	59 80	-18 90		1 62	1 24	55 00	R13TSS		41 42		MODRES	CR		59 02	27M0F8W			P	
MHL	MHL00000	146 00	2	167 64	9 83		2 07	0 90	157 42	R13TSS		41 75		MODRES	CR		58 95	27M0F8W			P	7
MKD	MKD14800	23 00	2	21 61	41 56		0 60	0 60	90 00	R13TSS		48 88		MODRES	CR		58 88	27M0F8W			P	5,7
MLA	MLA22800	86 00	2	114 10	3 90		2 34	1 12	45 00	R13TSS		40 26		MODRES	CR		58 56	27M0F8W			P	
MLI	MLI32700	-37 00	2	-2 00	19 00		2 66	1 26	127 00	R13TSS		39 19		MODRES	CR		58 19	27M0F8W			P	
NOR	BIFROS22	-0 80	2	17 00	81 50					NO9		32 00	6 00	MODRES	CR		54 50	27M0FXF	BIFROST-2		A	
NZL	CKH05200	158 00	2	-161 00	-19 80		1 02	0 64	132 00	R13TSS		46 30		MODRES	CL		59 60	27M0F8W			3	P
NZL	CKH05201	158 00	2	-161 00	-19 80		1 02	0 64	132 00	R13TSS		46 30		MODRES	CL		59 60	27M0F8W			3	P
PAK	PAK12700	38 00	2	69 60	29 50		2 30	2 16	14 00	R13TSS		37 49		MODRES	CR		58 89	27M0F8W			73	P
PAK	PAK12701	38 00	2	69 60	29 50		2 30	2 16	14 00	R13TSS		37 49		MODRES	CR		58 89	27M0F8W			73	P
PNG	PNG13100	110 00	2	147 70	-6 30		2 50	2 18	189 00	R13TSS		37 08		MODRES	CR		59 38	27M0F8W			P	
TCD	TCD14300	-13 00	2	18 10	15 50		3 40	1 72	107 00	R13TSS		36 78		MODRES	CL		58 98	27M0F8W			P	
TGO	TGO22600	-25 00	2	0 80	8 60		1 52	0 80	105 00	R13TSS		44 65		MODRES	CL		58 45	27M0F8W			P	
TUV	TUV00000	176 00	2	177 61	-7 11		0 94	0 60	137 58	R13TSS		46 93		MODRES	CR		58 93	27M0F8W			P	7
USA	GUM33100	122 00	2	144 50	13 10		0 60	0 60	0 00	R13TSS		48 88		MODRES	CL		58 28	27M0F8W			15	P
USA	GUM33101	122 00	2	144 50	13 10		0 60	0 60	0 00	R13TSS		48 88		MODRES	CL		58 28	27M0F8W			15	P
YEM	YEM28600	11 00	2	44 00	15 67		0 80	0 80	114 88	R13TSS		47 66		MODRES	CR		58 86	27M0F8W			P	7
ZAI	ZAI32300	-19 00	2	21 30	-6 80		2 80	1 52	149 00	R13TSS		36 18		MODRES	CR		59 56	27M0F8W			P	
AFG	AFG24500	50 00	3	70 20	35 50		1 32	1 13	53 00	R13TSS		42 71		MODRES	CR		57 81	27M0F8W			P	
AUS	AUS00400	152 00	3	123 00	-24 20		3 06	2 17	102 00	R13TSS		36 22		MODRES	CR		58 22	27M0F8W			76	P
AUS	AUS0040A	152 00	3	96 83	-12 19		0 60	0 80	0 00	R13TSS		48 88		MODRES	CR		58 88	27M0F8W			76	P
AUS	AUS0040B	152 00	3	105 69	-10 45		0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		58 88	27M0F8W			76	P
AUS	AUS0040C	152 00	3	110 52	-66 28		0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		58 88	27M0F8W			76	P
AUS	AUS00700	164 00	3	145 20	-38 10		2 12	1 02	147 00	R13TSS		41 09		MODRES	CR		58 49	27M0F8W			77	P
AUS	AUS0070A	164 00	3	158 94	-54 50		0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		58 88	27M0F8W			77	P
BEN	BEN23300	-19 00	3	2 20	9 50		1 44	0 68	97 00	R13TSS		44 54		MODRES	CL		58 34	27M0F8W			P	
CHN	CHN15700	62 00	3	102 30	27 80		2 56	1 58	127 00	R13TSS		36 38		MODRES	CL		60 08	27M0F8W			P	
CHN	CHN16000	92 00	3	122 80	45 30		2 50	1 45	150 00	R13TSS		38 85		MODRES	CL		60 05	27M0F8W			P	
COM	COM20700	29 00	3	44 10	-12 10		0 76	0 60	149 00	R13TSS		47 86		MODRES	CL		58 08	27M0F8W			P	
E	HISPASA2	-30 00	3	-8 80	35 40		3 00	1 90	45 00	R13TSS		36 90		MODRES	CL		59 00	27M0F8W	HISPASAT-2		A	5,7
F	F2_A2733	-7 00	3	2 60	45 90		2 50	0 98	160 00	R13TSS		41 60		MODRES	CR		58 00	27M0F9W	RADIOSAT-2	19	A	
F	F2aA2773	-7 00	3	2 60	45 90		2 50	0 98	160 00	R13TSS		41 60		MODRES	CR		58 00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2773	-7 00	3	2 60	45 90		2 50	0 98	180 00	RAD_TSS		41 60		MODRES	LE	68 00	58 00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3373	-7 00	3	2 60	45 90		2 50	0 98	160 00	RAD_TSS		41 60		MODRES	LE	68 00	58 00	33M0F9W	RADIOSAT-3	19	A	
F	F3_D2773	-7 00	3	2 60	45 90		2 50	0 98	160 00	RAD_TSS		41 60		MODRES	LE	68 00	58 00	27M0G9W	RADIOSAT-3	19	A	
F	F3_D3373	-7 00	3	2 60	45 90		2 50	0 98	160 00	RAD_TSS		41 60		MODRES	LE	68 00	58 00	33M0G9W	RADIOSAT-3	19	A	
F /EUT	E2WA7DA1	29 00	3	1 90	49 00		1 82	1 82	0 00	R13TSS		40 40		R13RES	CR		51 00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29 00	3	12 70	44 50		1 82	1 82	0 00	R13TSS		40 40		R13RES	CR		52 00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29 00	3	8 80	61 30		3 06	0 71	9 00	R13TSS		41 50		R13RES	CR		60 50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29 00	3	17 50	40 40		2 54	1 07	168 00	R13TSS		40 70		R13RES	CR		53 70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29 00	3	-12 50	35 50		3 75	1 27	25 00	R13TSS		38 30		R13RES	CR		57 30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29 00	3	35 40	38 70		2 25	0 93	174 00	R13TSS		41 70		R13RES	CR		54 70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29 00	3	8 00	49 70		2 64	1 45	26 00	R13TSS		39 30		R13RES	CR		51 30	27M0F9W	EUROPESAT-1	16	AE	8
FSM	FSM00000	148 00	3	151 67	5 42		5 34	1 51	168 52	R13TSS		35 37		MODRES	CL		58 87	27M0F8W			P	5,7

1 Adm. Symb	2 Beam Identification	3 Orbital Position*	4 Chan nel	5 Boresight		6 Space Antenna Character.			7 Space Antenna	8 Shap. Beam	9 Space Ant. Gain		10 Earth Antenna	11 Polarization		12 EIRP dBW	13 Designation of Emission	14 Satellite Identification	15 Group Code	16 Status	17 Re- marks
				Long °	Lat °	Major*	Minor*	Orient °			Co-pol.	X-pol.		Typ.	Angle°						
GAB	GAB28000	-13 00	3	11 80	-0 60	1 43	1.12	64 00	R13TSS		42 40		MODRES	CR		58 30	27M0F8W			P	
GMB	GMB30200	-37 00	3	-15 10	13 40	0 79	0 60	4 00	R13TSS		47 69		MODRES	CL		58 29	27M0F8W			P	
GRC	GRC10500	5 00	3	24 70	38 20	1 78	0 98	158 00	R13TSS		42 03		MODRES	CR		58 33	27M0F8W			P	
IND	IND04300	56 00	3	77 80	11 10	1 36	1 28	172 00	R13TSS		42 04		MODRES	CR		58 34	27M0F8W			P	
IND	IND04701	58 00	3	93 30	11 10	1 92	0 80	86 00	R13TSS		43 83		MODRES	CR		58 43	27M0F8W			P	
INS	INS03600	104 00	3	135 20	-3 80	2 48	2 00	147 00	R13TSS		37 53		MODRES	CR		58 63	27M0F8W			P	
IRN	IRN10900	34 00	3	54 20	32 40	3 82	1 82	148 00	R13TSS		38 03		MODRES	CL		57 63	27M0F8W	72	P		
IRN	IRN10901	34 00	3	54 20	32 40	3 82	1 82	149 00	R13TSS		38 03		MODRES	CL		57 63	27M0F8W	72	P		
J	000BS-3N	109 85	3	134 50	31 50	3 52	3 30	68 00	R13TSS		33 80		R13RES	CR	84 20	27M0F8W	BS-3N	33	AE		
J	J 11100	110 00	3	134 50	31 50	3 52	3 30	68 00	R13TSS		33 80		R13RES	CR	84 20	27M0F8W		33	PE		
KIR	KIR00001	176 00	3	177 16	-0 79	4 47	1 27	163 00	R13TSS		38 91		MODRES	CL		58 01	27M0F8W			P 5,7	
LBN	LBN27900	11 00	3	35 80	33 90	0 80	0 80	0 00	R13TSS		48 88		MODRES	CL		58 58	27M0F8W			P	
LBR	LBR24400	-33 50	3	-9 30	6 60	1 22	0 70	133 00	R13TSS		45 13		MODRES	CR		58 23	27M0F8W			P 7	
LBY	LBY32100	-25 00	3	13 10	27 20	2 36	1 12	128 00	R13TSS		40 23		MODRES	CL		58 03	27M0F8W			P	
LIE	LIE25300	-37 00	3	9 50	47 10	0 60	0 60	0 00	R13TSS		48 86		MODRES	CR		57 38	27M0F8W			P	
LTU	LTU06100	23 00	3	23 79	55 66	0 70	0 60	176 00	R13TSS		48 21		MODRES	CL		58 91	27M0F8W			P 7	
LUX	LUX11400	-19 00	3	8 00	49 80	0 80	0 80	0 00	R13TSS		48 86		MODRES	CR		57 88	27M0F8W			P	
NRU	NRU30900	134 00	3	167 00	-0 50	0 60	0 60	0 00	R13TSS		48 88		MODRES	CL		57 48	27M0F8W			P	
ROU	ROU13600	-1 00	3	25 00	45 70	1 38	0 68	155 00	R13TSS		44 85		MODRES	CL		58 75	27M0F8W			P 5,7	
SMO	SMO05700	158 00	3	-172 30	-13 70	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		58 58	27M0F8W			P	
SNG	SNG15100	74 00	3	103 80	1 30	0 60	0 60	0 00	R13TSS		48 88		MODRES	CL		58 48	27M0F8W			P	
SOM	SOM31200	23 00	3	45 00	8 40	3 28	1 54	71 00	R13TSS		37 44		MODRES	CR		57 34	27M0F8W			P	
SVK	SVK14400	17 00	3	19 85	46 89	0 82	0 80	5 20	R13TSS		47 53		MODRES	CR		58 93	27M0F8W			P	
UGA	UGA05100	11 00	3	32 30	1 20	1 46	1 12	60 00	R13TSS		42 31		MODRES	CR		58 21	27M0F8W			P	
UKR	UKR06300	38 00	3	31 74	48 22	2 29	0 98	177 78	R13TSS		41 01		MODRES	CL		58 91	27M0F8W			P 5,7	
USA	MRA33200	122 00	3	145 90	16 90	1 20	0 60	78 00	R13TSS		45 87		MODRES	CR		58 47	27M0F8W	14	P		
USA	MRA33201	122 00	3	145 90	16 90	1 20	0 60	78 00	R13TSS		45 87		MODRES	CR		58 47	27M0F8W	14	P		
UZB	UZB07100	44 00	3	64 01	41 21	2 67	0 98	163 32	R13TSS		40 37		MODRES	CL		58 87	27M0F8W			P 5,7	
VTN	VTN32500	86 00	3	108 00	14 80	3 80	1 90	126 00	R123FR		35 88		MODRES	CL		58 36	27M0F8W			P 7	
VUT	VUT12800	140 00	3	168 00	-16 40	1 52	0 68	87 00	R13TSS		44 30		MODRES	CL		57 80	27M0F8W			P	
ZMB	ZMB31400	-1 00	3	27 50	-13 10	2 38	1 48	39 00	R13TSS		38 98		MODRES	CR		58 68	27M0F8W			P	
ALG	ALG25200	-25 00	4	1 60	25 50	3 64	2 18	152 00	R13TSS		35 49		MODRES	CR		57 79	27M0F8W			P	
AND	AND34100	-37 00	4	1 60	42 50	0 80	0 80	0 00	R13TSS		48 88		MODRES	CL		58 48	27M0F8W			P	
ARS	ARS00300	17 00	4	41 10	23 80	3 52	1 68	134 00	R13TSS		36 73		MODRES	CL		57 73	27M0F8W	70	P		
ARS	ARS00301	17 00	4	41 10	23 80	3 52	1 68	134 00	R13TSS		36 73		MODRES	CL		57 73	27M0F8W	70	P		
AUS	AUS00500	152 00	4	133 90	-18 40	2 82	1 74	105 00	R13TSS		37 53		MODRES	CL		59 43	27M0F8W			P	
AUT	AUT01800	-19 00	4	12 20	47 50	1 14	0 63	166 00	R13TSS		45 88		MODRES	CL		59 08	27M0F8W			P	
AZE	AZE06400	23 00	4	47 47	40 14	0 93	0 60	158 14	R13TSS		48 98		MODRES	CR		58 88	27M0F8W			P 5,7	
BUL	BUL02000	-1 00	4	25 00	43 00	1 04	0 60	165 00	R13TSS		46 50		MODRES	CR		58 60	27M0F8W			P	
CHN	CHN15600	62 00	4	97 80	36 30	2 56	1 58	157 00	R13TSS		38 38		MODRES	CR		58 48	27M0F8W			P	
CHN	CHN16100	92 00	4	118 10	31 10	2 49	1 69	117 00	R13TSS		38 21		MODRES	CR		59 41	27M0F8W			P	
EGY	EGY02600	-7 00	4	29 70	26 80	2 33	1 72	136 00	R13TSS		38 42		MODRES	CL		58 12	27M0F8W			P	
F	F2_A2744	-7 00	4	3 40	45 60	2 00	0 95	155 00	R13TSS		42 70		MODRES	CL		58 00	27M0F8W	RADIOSAT-2	19	A	
F	F2aA2784	-7 00	4	3 40	45 60	2 00	0 95	155 00	R13TSS		42 70		MODRES	CL		58 00	27M0F9W	RADIOSAT-2	19	A	
F	F3_A2784	-7 00	4	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42 70		MODRES	LE	158 00	58 00	27M0F9W	RADIOSAT-3	19	A	
F	F3_A3384	-7 00	4	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42 70		MODRES	LE	158 00	58 00	33M0F9W	RADIOSAT-3	19	A	

1 Adm Symb	2 Beam Identification	3 Orbital Position°	4 Chan nel	5 Boresight			6 Space Antenna Character			7 Space Antenna	8 Shape Beam	9 Space Ant Gau		10 Earth Antenna	11 Polarization		12 EIRP dBW	13 Designation of Emission	14 Satellite Identification	15 Group Code	16 Status	17 Re- marks	
				Long °	Lat °	Major°	Minor°	Orient °				Copol.	X-pol.		Type	Angle°							
F	F3_D2784	-7 00	4	3 40	45 60	2 00	0 85	155 00	RAD_TSS		42 70		MODRES	LE	158 00	58 00	27M0G9W	RADIO SAT-3	19	A			
F	F3_D3384	-7 00	4	3 40	45 60	2 00	0 95	155 00	RAD_TSS		42 70		MODRES	LE	158 00	58 00	33M0G9W	RADIO SAT-3	19	A			
F	OCE10100	-180 00	4	-145 00	-18 30	4 34	3 54	4 00	R13TSS		32 58		MODRES	CL		58 48	27M0F8W			P			
F/EUT	E2WA7DA2	29 00	4	1 90	49 00	1 82	1 82	0 00	R13TSS		40 40		R13RES	CL		51 00	27M0F9W	EUROPE SAT-1	16	AE	8		
F/EUT	E2WA7DB2	29 00	4	12 70	44 50	1 82	1 82	0 00	R13TSS		40 40		R13RES	CL		52 00	27M0F9W	EUROPE SAT-1	16	AE	8		
F/EUT	E2WA7DC2	29 00	4	8 90	61 30	3 06	0 71	9 00	R13TSS		41 50		R13RES	CL		60 50	27M0F9W	EUROPE SAT-1	16	AE	8		
F/EUT	E2WA7DD2	29 00	4	17 50	40 40	2 54	1 07	168 00	R13TSS		40 70		R13RES	CL		53 70	27M0F9W	EUROPE SAT-1	16	AE	8		
F/EUT	E2WA7DE2	29 00	4	-12 50	35 50	3 75	1 27	25 00	R13TSS		38 30		R13RES	CL		57 30	27M0F9W	EUROPE SAT-1	16	AE	8		
F/EUT	E2WA7DF2	29 00	4	35 40	38 70	2 25	0 93	174 00	R13TSS		41 70		R13RES	CL		54 70	27M0F9W	EUROPE SAT-1	16	AE	8		
F/EUT	E2WA7DG2	29 00	4	8 00	49 70	2 84	1 45	26 00	R13TSS		39 30		R13RES	CL		51 30	27M0F9W	EUROPE SAT-1	16	AE	8		
G	G 02700	-33 50	4	-3 50	53 80	1 84	0 72	142 00	R13TSS		43 23		MODRES	CR		60 03	27M0F8W			P	7		
IND	IND04001	56 00	4	73 00	25 00	1 82	1 48	58 00	R13TSS		40 14		MODRES	CL		58 64	27M0F8W			P			
IND	IND04800	68 00	4	86 20	25 00	1 56	0 90	120 00	R13TSS		42 97		MODRES	CL		58 67	27M0F8W			P			
INS	INS02800	80 20	4	101 50	0 00	3 00	1 20	133 00	R13TSS		38 88		MODRES	CL		58 28	27M0F8W			P			
KOR	KO11201D	116 00	4	127 50	36 00	1 24	1 02	168 00	R13TSS		43 40		R13RES	CL		63 80	27M0G7W	KOREASAT-1	20	AE			
KOR	KOR11200	110 00	4	127 50	36 00	1 24	1 02	168 00	R13TSS		43 43		MODRES	CL		58 83	27M0F8W			20	P		
KOR	KOR11201	116 00	4	127 50	36 00	1 24	1 02	168 00	R13TSS		43 40		R13RES	CL		63 80	27M0F8W	KOREASAT-1	20	AE			
LAO	LAO28400	74 00	4	103 70	18 10	2 16	0 78	133 00	R13TSS		42 18		MODRES	CR		58 78	27M0F8W			P			
MAU	MAU24300	29 00	4	58 80	-13 90	1 58	1 38	65 00	R13TSS		41 12		MODRES	CR		58 72	27M0F8W			P			
MDA	MDA06300	38 00	4	28 41	46 99	0 60	0 60	90 00	R13TSS		48 88		MODRES	CR		58 88	27M0F8W			P	5, 7		
MLA	MLA22800	86 00	4	114 10	3 80	2 34	1 12	45 00	R13TSS		40 28		MODRES	CR		58 58	27M0F8W			P			
MLD	MLD3080A	44 00	4	73 10	6 00	0 96	0 60	90 00	R13TSS		46 84		MODRES	CR		58 74	27M0F8W			P	7		
MLI	MLI32800	-37 00	4	-7 60	13 20	1 74	1 24	171 00	R13TSS		41 11		MODRES	CR		58 71	27M0F8W			P			
MLT	MLT14700	-13 00	4	14 30	35 90	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		55 98	27M0F8W			P			
MOZ	MOZ30700	-1 00	4	34 00	-18 00	3 57	1 38	55 00	R13TSS		37 52		MODRES	CL		59 22	27M0F8W			P			
NZL	CKH05300	158 00	4	-163 00	-11 20	1 78	0 72	30 00	R13TSS		43 42		MODRES	CL		59 32	27M0F8W			4	P		
NZL	CKH05301	158 00	4	-163 00	-11 20	1 78	0 72	30 00	R13TSS		43 42		MODRES	CL		59 32	27M0F8W			4	P		
PAK	PAK28300	38 00	4	74 70	33 80	1 34	1 13	160 00	R13TSS		42 65		MODRES	CR		59 35	27M0F8W			75	P		
PAK	PAK28301	38 00	4	74 70	33 90	1 34	1 13	160 00	R13TSS		42 65		MODRES	CR		59 35	27M0F8W			75	P		
PLW	PLW00000	146 00	4	132 99	5 52	1 29	0 60	55 84	R13TSS		45 55		MODRES	CR		58 85	27M0F8W			P	7		
PNG	PNG27100	128 00	4	148 00	-8 70	2 80	2 05	155 00	R13TSS		38 88		MODRES	CR		58 38	27M0F8W			P			
RRW	RRW31000	11 00	4	30 00	-2 10	0 86	0 60	42 00	R13TSS		48 47		MODRES	CL		59 77	27M0F8W			P			
S	S 13800	5 00	4	16 20	81 00	1 04	0 98	14 00	R13TSS		44 38		MODRES	CL		62 08	27M0F8W			27	P		
S	SIRIUS01	5 20	4	14 00	83 00	1 30	0 70	142 00	R13TSS		42 50		R13RES	CR		59 50	27M0F8W	SIRIUS	27	AE			
STP	STP24100	-13 00	4	7 00	0 80	0 60	0 60	0 00	R13TSS		48 88		MODRES	CL		58 38	27M0F8W			P			
SVN	SVN14800	34 00	4	15 01	46 18	0 60	0 60	90 00	R13TSS		48 88		MODRES	CR		58 88	27M0F8W			P	5, 7		
TON	TON21500	170 00	4	-174 70	-18 00	1 41	0 68	85 00	R13TSS		44 63		MODRES	CR		58 33	27M0F8W			P			
ZAI	ZAI32200	-19 00	4	22 40	0 00	2 16	1 88	48 00	R13TSS		38 36		MODRES	CR		59 88	27M0F8W			P			
AFG	AFG24600	50 00	5	64 50	33 10	1 44	1 40	21 00	R13TSS		41 40		MODRES	CR		58 40	27M0F8W			P			
AUS	AUS00900	164 00	5	147 50	-32 10	2 31	1 43	187 00	R13TSS		39 25		MODRES	CR		59 25	27M0F8W			78	P		
AUS	AUS0090A	164 00	5	159 06	-31 52	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		58 88	27M0F8W			78	P	7	
AUS	AUS0090B	164 00	5	167 93	-29 02	0 60	0 60	0 00	R13TSS		48 88		MODRES	CR		58 88	27M0F8W			78	P	7	
BLR	BLR06200	38 00	5	27 91	53 06	1 21	0 80	11 47	R13TSS		45 83		MODRES	CL		58 93	27M0F8W			P	5, 7		
BTN	BTN03100	86 00	5	90 44	27 05	0 72	0 80	175 47	R13TSS		48 11		MODRES	CR		58 91	27M0F8W			P	5, 7		
CHN	CHN15500	62 00	5	88 30	31 50	3 38	1 45	162 00	R13TSS		37 54		MODRES	CL		57 94	27M0F8W			P			
CHN	CHN16200	92 00	5	115 90	21 00	2 74	2 42	23 00	R13TSS		38 23		MODRES	CL		59 03	27M0F8W			P			

1 Adm Synb	2 Beam Identification	3 Orbital Position°	4 Chan nel	5 Bore sight			6 Space Antenna Character.			7 Space Antenna	8 Shap Beam	9 Space Ant. Gain		10 Earth Antenna	11 Polarization	12 EIRP	13 Designation of Emission	14 Satellite Identification	15 Group Code	16 Status	17 Re- marks
				Long °	Lat °	Major *	Minor *	Orient *	Co-pol			Co-pol	X-pol								
CHN	CHN16400	79 80	5	112 20	37 40	1.06	0.76	111 00	R13TSS			45.39		MODRES	CR	59.19	27M0F8W			P	
CHN	CHN19000	122 00	5	114 17	23 32	0.91	0.60	2.88	R13TSS			47.08		MODRES	CR	58.88	27M0F8W			P 5	
CME	CME30000	-13 00	5	12 70	8 20	2.54	1.68	87 00	R13TSS			38.15		MODRES	CR	58.55	27M0F8W			P	
E	HISPASA2	-30 00	5	-8 80	35 40	3.00	1.90	45 00	R13TSS			36.80		MODRES	CL	59.00	27M0F8W	HISPASAT-2	A	5, 7	
EST	EST06100	23 00	5	25 01	58 47	0.72	0.60	8 83	R13TSS			48.09		MODRES	CL	58.89	27M0F8W			P 5, 7	
F	F 09300	-19 00	5	2 80	45 90	2.50	0.98	160 00	R13TSS			40.56		R13RES	CR	63.76	27M0F8W			19 PE	
F	F 09308	-7 00	5	2 80	45 90	2.50	0.98	160 00	RAD_TSS			41.00		MODRES	CR	58.90	27M0F8W	RADIOSAT	19	A	
F	F3_A2751	-7 00	5	2 80	45 90	2.50	0.98	160 00	RAD_TSS			41.60		MODRES	LE	68.00	58.00	27M0F9W	RADIOSAT-3	19	A
F	F3_A3351	-7 00	5	2 80	45 90	2.50	0.98	160 00	RAD_TSS			41.60		MODRES	LE	68.00	58.00	33M0F9W	RADIOSAT-3	19	A
F	F3_D2751	-7 00	5	2 80	45 90	2.50	0.98	160 00	RAD_TSS			41.60		MODRES	LE	68.00	58.00	27M0G9W	RADIOSAT-3	19	A
F	F3_D3351	-7 00	5	2 80	45 90	2.50	0.98	160 00	RAD_TSS			41.60		MODRES	LE	68.00	58.00	33M0G9W	RADIOSAT-3	19	A
F /EUT	E2WA7DA1	29 00	5	1 90	49 00	1.82	1.82	0.00	R13TSS			40.40		R13RES	CR	51.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DB1	29 00	5	12 70	44 50	1.82	1.82	0.00	R13TSS			40.40		R13RES	CR	52.00	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DC1	29 00	5	8 90	61 30	3.06	0.71	9.00	R13TSS			41.50		R13RES	CR	60.50	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DD1	29 00	5	17 50	40 40	2.54	1.07	168 00	R13TSS			40.70		R13RES	CR	53.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DE1	29 00	5	-12 50	35 50	3.75	1.27	25 00	R13TSS			38.30		R13RES	CR	57.30	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DF1	29 00	5	35 40	38 70	2.25	0.93	174 00	R13TSS			41.70		R13RES	CR	54.70	27M0F9W	EUROPESAT-1	16	AE	8
F /EUT	E2WA7DG1	29 00	5	8 00	49 70	2.84	1.45	26 00	R13TSS			39.30		R13RES	CR	51.30	27M0F9W	EUROPESAT-1	16	AE	8
FJI	FJI19300	152 00	5	179 40	-17 90	1.04	0.98	87 00	R13TSS			44.36		MODRES	CR	58.88	27M0F8W			P	
GUI	GUI19200	-37 00	5	-11 00	10 20	1.58	1.04	147 00	R13TSS			42.29		MODRES	CL	58.49	27M0F8W			P	
HRV	HRV14800	34 00	5	16 74	44 54	0.88	0.89	5.30	R13TSS			46.57		MODRES	CL	58.87	27M0F8W			P 5, 7	
IND	IND03901	56 00	5	72 70	11 20	1.26	0.60	107 00	R13TSS			45.66		MODRES	CR	58.06	27M0F8W			P	
IND	IND04400	68 00	5	79 50	22 30	2.19	1.42	146 00	R13TSS			39.52		MODRES	CR	58.42	27M0F8W			P	
INS	INS03500	104 00	5	124 30	-3 20	3.34	1.94	82 00	R13TSS			36.33		MODRES	CR	58.23	27M0F8W			P	
J	000BS-3N	109 85	5	134 50	31 50	3.52	3.30	68 00	R13TSS			33.80		R13RES	CR	64.20	27M0F8W	BS-3N	33	AE	
J	J 11100	110 00	5	134 50	31 50	3.52	3.30	68 00	R13TSS			33.80		R13RES	CR	64.20	27M0F8W		33	PE	
LBY	LBY28000	-25 00	5	21 40	26 00	2.50	1.04	119 00	R13TSS			40.30		MODRES	CL	58.50	27M0F8W			P	
MDG	MDG23600	29 00	5	46 60	-18 80	2.72	1.14	85 00	R13TSS			39.53		MODRES	CL	58.43	27M0F8W			P	
NZL	NZL05500	158 00	5	172 30	-39 70	2.88	1.56	47 00	R13TSS			37.92		MODRES	CR	58.42	27M0F8W			P	
POL	POL13200	-1 00	5	19 30	51 80	1.46	0.84	162 00	R13TSS			44.74		MODRES	CL	59.24	27M0F8W			P	
QAT	QAT24700	17 00	5	51 10	25 30	0.60	0.60	0.00	R13TSS			48.88		MODRES	CR	58.78	27M0F8W			P	
SLM	SLM00000	146 00	5	159 32	-8 40	1.50	1.18	140.48	R13TSS			41.98		MODRES	CL	58.88	27M0F8W			P 5, 7	
SMR	SMR31100	-37 00	5	12 60	43 70	0.80	0.80	0.00	R13TSS			48.88		MODRES	CR	57.48	27M0F8W			P	
SWZ	SWZ231300	-1 00	5	31.50	-26 50	0.62	0.60	68 00	R13TSS			48.74		MODRES	CR	57.84	27M0F8W			P	
THA	THA14200	74 00	5	100 70	13 20	2.82	1.54	108 00	R13TSS			38.07		MODRES	CL	58.87	27M0F8W			P	
TJK	TJK06900	44 00	5	71.14	38 37	1.25	0.76	159.15	R13TSS			44.85		MODRES	CL	58.85	27M0F8W			P 5, 7	
TUR	TUR14500	5 00	5	34 40	38 90	2.88	1.04	168 00	R13TSS			40.00		MODRES	CR	58.80	27M0F8W			P	
USA	PLM33700	170 00	5	-161 40	7 00	0.60	0.60	0.00	R13TSS			48.88		MODRES	CR	57.38	27M0F8W		9	P	
USA	PLM33701	170 00	5	-161 40	7 00	0.60	0.60	0.00	R13TSS			48.88		MODRES	CR	57.38	27M0F8W		9	P	
USA	SMA33500	170 00	5	-170 10	-14 20	0.80	0.60	0.00	R13TSS			48.88		MODRES	CL	58.18	27M0F8W		13	P	
USA	SMA33501	170 00	5	-170 10	-14 20	0.80	0.60	0.00	R13TSS			48.88		MODRES	CL	58.18	27M0F8W		13	P	
USA	WAK33400	140 00	5	166 50	19 20	0.60	0.60	0.00	R13TSS			48.88		MODRES	CR	58.58	27M0F8W		11	P	
USA	WAK33401	140 00	5	166 50	19 20	0.60	0.60	0.00	R13TSS			48.88		MODRES	CR	58.58	27M0F8W		11	P	
YEM	YEM26700	11 00	5	48 61	14 42	1.68	1.44	157.35	R13TSS			40.61		MODRES	CL	58.91	27M0F8W			P 7	
	YYY00001	11 00	5	34 99	31 86	0.60	0.60	0.00	R13TSS			48.88		MODRES	CR	58.88	27M0F8W			P 3, 5, 7	
ALG	ALG25100	-25 00	6	4 20	33 20	2.45	1.25	172 00	R13TSS			39.59		MODRES	CR	58.39	27M0F8W			P	